

BORODKIN, A.S.

Several problems of the work analysis of the workshops of a
machinery manufacturing enterprise operating on a business
accounting basis. Trudy NPI 139:77-86 '62. (MIRA 16:6)
(Machinery industry--Finance)

BORODKIN, B., kand.tekhn.nauk

Research being done by students. Rech.transp 21 no.4:16-17
Ap '62. (MIRA 15:4)
(Inland water transportation--Technological innovations)

SIROTSKIY, V., doktor tekhn. nauk; BORODKIN, B., kand. tekhn. nauk

Contribution to industry by scientists of the Leningrad Institute
of Water Transportation. Rech. transp. 21 no.10:19-20 0 '62.
(MIRA 15:10)

(Inland water transportation--Research)

124-57-1-720

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 92 (USSR)

AUTHOR: Borodkin, B.S.

TITLE: Laboratory Investigation of the Kinematics of the Lifting of
Deep Subsurface Water Through the Action of Air Bubbles
(Laboratornoye issledovaniye kinematiki pod'yema glubinnykh
vod puzyr'kami vozdukha)

PERIODICAL: Tr. Leningr. in-ta inzh. vod. transp., 1955, Nr 22,
pp 152-165

ABSTRACT: Description of tests performed for the investigation of the
velocity field set up in stagnant and running water as a result
of the ascent of air bubbles from the bottom of the body of water
to its surface. The tests were performed in the troughs of the
hydraulic engineering laboratory of the LIIVT and simulate the
lifting of water from deep subsurface layers of a body of water
by means of compressed air issuing through perforated tubes
laid on the bottom of the reservoir. The tests were carried out
for several combinations of the depth of the water, the dis-
charge of air, and the speed of the current in the trough. The
velocity field was studied cinematographically and by means of

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124-57-1-720

Laboratory Investigation of the Kinematics (cont.)

the measurement of the velocity components; a special investigation was made of the surface velocity, for which an empirical formula is proffered for the case of zero flow velocity in the body of water. A verification was made of the formulas of I.M. Konovalov (Tr. Leningr. in-ta inzh. vod. transp., 1951, Nr 18) for the unit flow and velocity of the ascending flow, and empirical corrections are applied to the coefficients of the abovementioned formulas.

V. A. Arkhangel'skiy

1. Water--Velocity--Test methods
2. Water--Air bubble effects--Test results

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124-57-1-549D

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 68 (USSR)

AUTHOR: Borodkin, B.S.

TITLE: The Protection of Hydraulic Structures Against Ice Pressure
by Means of Compressed Air (Zashchita gidrotekhnicheskikh
sooruzheniy ot davleniya l'da primeneniye szhatogo vozdukha)

ABSTRACT: Bibliographic entry on the author's dissertation for the de-
gree of Candidate of Technical Sciences, presented to the
Leningr. in-t inzh. vod. transp. (Leningrad Institute for Water
Transport Engineering), Leningrad, 1956

ASSOCIATION: Leningr. in-t inzh. vod. transp. (Leningrad Institute for
Water Transport Engineering), Leningrad

1. Hydraulic structures 2. Ice--Pressure 3. Compressed air
--Applications

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112-57-8-16383

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8, p 53 (USSR)

AUTHOR: Borodkin, B. S.

TITLE: Compressed Air Used to Protect Hydro Installations Against Icing
(Zashchita gidrosooruzheniy ot deystviya l'da primeneniye szhatogo vozdukh)

PERIODICAL: Tr. Leningr. in-ta inzh. vod. transp. (Transactions of the Leningrad
Institute of Water-Transportation Engineers), 1956, Nr 23, pp 123-131

ABSTRACT: The author considers a method for keeping water surface unfrozen (when air temperature is below freezing) by means of pumping compressed air into the lower strata of water in a reservoir. The air bubbles come to the surface, bringing along warm water from the lower strata. In this way, dam shutters, port installations, sluices, and bridges can be protected from icing. In some cases, a longer navigational period is possible for sluices, docks, port basins, and channels. Experimental and theoretical investigations were made at LIIVT in 1953, while natural observations were taken at the Lower Svir' and Volkhov hydroelectric stations and at the Leningrad seaport in the winter of 1954-1955. At the hydro stations, the investigation was made in narrow clearings in front of the sluice inlet gates. Air was pumped through perforated pipes

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112-57-8-16383

Compressed Air Used to Protect Hydro Installations Against Icing

into the near-bottom strata of water by means of 4-atm $0.5\text{-m}^3/\text{min}$ compressors. Water in the near-bottom layers, 12 m deep at the Lower Svir' hydro station and 5 m deep at the Volkhov station, had temperatures of $+0.1^\circ$ to $+0.68^\circ\text{C}$. The surface layer temperature was $+0.01^\circ\text{C}$. After passing the compressed air, the water temperatures equalized ($+0.08^\circ$ at the bottom and $+0.04^\circ$ at the surface). Air was pumped at intervals of several hours. The clearings did not freeze at air temperatures of -25° to -30°C . At the Leningrad port, the investigations were made in the aquatorium of the ship building plant. With air supply rate $8\text{-}10\text{ m}^3/\text{min}$, a 4-5 cm thick ice was thawed and a clearing 35-40 m wide was made. The air was fed intermittently eight hours a day. After an interruption of forty hours, ice 8 cm thick was thawed in half an hour with the air rate of $22\text{ m}^3/\text{min}$. A theoretical calculation is presented which substantiates the basic parameter of the unit, i. e., its air rate, with due allowances for air and water temperatures and the depth of the reservoir.

M. K. B.

Card 2/2

BORODKIN, B.S., kand.tekhn.nauk

Designing the pipe of a pneumatic breakwater. Trudy LIIVT no.26:63-68
'59. (MIRA 14:9)

(Waves, Calming of) (Compressed air)

KONOVALOV, I.M., prof.; BALANIN, V.V., dots.; BORODKIN, B.S., kand.
tekhn.nauk; SHCHERBAKOVA, R.I., kand.tekhn.nauk

Extending navigation on inland waters and possibilities of
year-round operation. Rech.transp. 18 no.9:33-37 S '59.
(MIRA 13:2)
(Ice on rivers, lakes, etc.) (Ice-breaking vessels)

BORODKIN, B.S., kand.tekhn.nauk; PAVLOV, B.K., inzh.

Study of the actual operation of the pneumatic installation in
the Kama Reservoir. Rech.transp. 18 no.10:43-46 0 '59.
(MIRA 13:2)

(Kama Reservoir—Ice on rivers, lakes, etc.)

BORODKIN, B.S., kand.tekhn.nauk; MELKONYAN, G.I., kand.tekhn.nauk

Use of compressed air to form nonfreezing areas in water reservoirs.
Trudy LIVT no.8:23-34 '60. (MIRA 15:2)
(Reservoirs)(Ice on rivers, lakes, etc.)(Compressed air)

1221-KNY A, G.I., hand, tel. no. 1221; B. N. D. L., B.S., hand, tel. no. 1221.

Designing air pipes of pneumatic devices for maintaining non-freezing water areas in dissipating devices. Army (NY) 1221-33-42 '61.

(NY 1221-33-42)

(Compressed air)

(Hoses, C. L. ring of)

BORODKIN, B.S., kand. tekhn. nauk

Calculation of a perforated pipeline for the uniform distribution of heat along its length. Trudy IIVT no. 4625-13 '63
(MIRA 1727)

BALANIN, Vasil'iy Vasil'yevich, kand. tekhn. nauk, dots.; BORODKIN, Boris Solomonovich, kand. tekhn. nauk, dots.; MELKONYAN, Georgiy Ivanovich, kand. tekhn. nauk, dots.; KONOVALOV, I.M., prof., red.; LOBANOV, Ye.M., red.

[Utilizing the heat of deep waters to maintain ice-free water areas] Ispol'zovanie tepla glubinnykh vod vodoemov dlia podderzhaniia nezamerzaiushchikh akvatorii. Moskva, Transport, 1964. 271 p. (MIRA 18:2)

1. Leningradskiy institut vodnogo transporta (for Balanin, Borodkin, Melkonyan).

BORODKIN, F.

Use of a bonus wage system in the automated industries of the
U.S. Biul.nauch.inform.trud i zar.plata no.1:70-74 '59.
(MIRA 12:4)

(United States--Bonus system)

BORODKIN, F.

Approved for release by NSA on 08-12-2011 pursuant to E.O. 13526

Use of electronic equipment to establish norms for work
movements. Biul.nauch.inform.; trud i zar.plata no.2:
74-77 '59. (MIRA 12:5)

(Motion study)

BORODKIN, F.

Determining the economically advantageous correlation between the number of workers and the number of the objects to be serviced. Biul.nauch.inform.: trud i zar.plata. no.3:
68-73 '59. (MIRA 12:5)

(Factory management)

BORODKIN, F.; MAKSIMOV, Yu.

Industrial research. Biul.nauch.inform.: trad i zar.plata
no.6:64-69 '59. (MIRA 12:9)
(Industrial research)

BORODKIN, F.; MAKSIMOV, Yu.

Computing work norms for operating machinery with the aid of
mathematics. Biul.nauch.inform.: trud i zar.plata no.11:70-74
'59. (MIRA 13:5)

(Machine-shop practice--Production standards)
(Mathematics)

BORODKIN, F.; MAKIMOV, Yu.

On using mathematical methods for production-economic calculations in the U.S.A. Biul.nauch. inform.; trud i zar. plata
3 no.1:69-75 '60. (MIRA 13:6)

(United States--Operations research)

BORODKIN, F.; MAKSIMOV, Yu.; ORLOV, P.M., kand. ekon. nauk, red.;
PETRYANKINA, V.I., red.; YEVSTIGNEYEVA, V.S., tekhn. red.

[Method for short unplanned observations used in enterprises of capitalist countries] Metod sluchainykh momentnykh nabludeni; iz opyta primeneniia na predpriatiakh kapitalisticheskikh stran. Pod red. P.M.Orlova. Moskva, Nauchno-issl. in-t truda Gos.kom-ta Soveta Ministrov SSSR po voprosam truda i zarabotnoi platy, 1961. 59 p.

(MIRA 16:1)

(Production standards) (Time study)

END

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From

Borisov, S.V.

To

Borodkin, F.